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Cc: Willard Potter[otto@demaximis.com]; Nace, Charles[Nace.Charles@epa.gov]
From: LaPoma, Jennifer
Sent: Tue 6/7/2016 6:24:22 PM
Subject: SQT follow up
LPR 17-Mile Reference Screening.xlsx
NCA00_06Seddata.accdb
20160606_SQT Reference Acceptability.pdf

Rob,

In April, the CPG reported results of their implementation of the EPA R2 Sediment Quality Triad methodology applied to reference areas above Dundee Dam, Jamaica Bay and Mullica River/Great Bay. The CPG's analysis identified a different set or acceptable stations in the Upper Passaic River data set than indicated in a preliminary analysis provided by EPA. In addition, the CPG concluded that only one sampling station in the Mullica River/Great Bay reference area had a complete SQT dataset and passed both chemical and toxicity screening criteria. To this end, an evaluation and identification of acceptable reference stations in the Upper Passaic River and Mullica River/Great Bay (the CPG reported no inconsistencies in their screening of Jamaica Bay stations) was conducted. Please see the attached.

Utilizing data aggregation and decision rules specified in CPG documents, the evaluation of the reference data Above Dundee Dam supports the CPG's findings: chemical screening values differ by no more than a few percent and the set of acceptable reference stations are the consistent.

Because of the limited number of reference stations in the Mullica River/Great Bay reference area that the CPG reported as having complete SQT information, an assessment of available monitoring data that could be used to help define the reference condition for this combined area was conducted. SQT data was acquired (including analytical chemistry, laboratory toxicity test results and benthic macroinvertebrate taxonomic data) from an archived EPA National Coastal Assessment (NCA) website and was also provided with data files by NJDEP. The evaluation of these datasets concluded that there are 16 distinct sampling stations (rather than the single station identified by the CPG) in the Mullica River/Great Bay reference area that have the requisite SQT data and which pass both the chemical and toxicological screening criteria specified in EPA R2s SQT methodology. Moreover, based on review of available salinity data and benthic community composition (i.e. predominance of freshwater forms), it has been concluded that 3 of the acceptable Mullica River stations are representative of freshwater rather than estuarine habitat. The evaluation's findings indicate that there are adequate data to characterize pristine and urbanized reference conditions for both freshwater and estuarine portions of the Lower Passaic River.

With one possible exception, it was determined that the EPA R2 SQT methodology chemical and toxicity screening procedures were implemented accurately by the CPG. Inconsistencies between the results of EPA's evaluation and CPG evaluation of the Mullica River/Great Bay reference area appears to be due to different understandings of what data are available (the CPG dataset identified only 2 stations whereas EPA identified 22 stations with complete SQT information). Although the CPG may not be aware of the additional information that EPA evaluated, it is possible that CPG had this information and rejected it for procedural reasons. EPA evaluated possible explanations for the latter case and provides potential rebuttal arguments that help to resolve the remaining inconsistencies.

Attached to this email are three files: an excel workbook, access database, and a pdf.

Please let me know if CPG would like to discuss further or if you have any questions.

Jennifer LaPoma